

CLAIMS

1. A network selection method for a mobile station, comprising:
selecting and operating with a communication network;
5 after regaining signal coverage from an out-of-coverage condition with the communication network, or after powering on from a power-off state, performing the following acts of:
 - scanning to identify a plurality of communication networks in a coverage area within which the mobile station is operating;
 - 10 if a home communication network of the mobile station is identified as being available by the scanning, selecting and operating with the home communication network; and
 - 15 otherwise, if the communication network is identified as being available by the scanning, continuing operation with the communication network.
2. The method of claim 1, wherein the communication network comprises a Registered Public Land Mobile Network (RPLMN) during the method.
- 20 3. The method of claim 1, wherein the home communication network comprises a Home Public Land Mobile Network (HPLMN) of the mobile station.
4. The method of claim 1, further comprising:
otherwise, if the communication network is identified as being unavailable by
25 the scanning, selecting and operating with an alternate communication network based on a prioritized network list.
- 30 5. The method of claim 1, wherein the act of scanning comprises receiving a Mobile Country Code (MCC) and Mobile Network Code (MNC) pair for each communication network available in the coverage area.

6. The method of claim 1, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

7. A mobile station, comprising:

5 a wireless transceiver;

an antenna coupled to the wireless transceiver;

one or more processors coupled to the wireless transceiver;

the one or more processors being configured to select a communication network with which to communicate by:

10 selecting and operating with a communication network;

after regaining signal coverage from an out-of-coverage condition with the communication network, or after powering on from a power-off state, causing the following acts to be performed:

15 scanning to identify a plurality of communication networks in a coverage area within which the mobile station is operating;

if a home communication network of the mobile station is identified as being available by the scanning, selecting and operating with the home communication network; and

20 otherwise, if the communication network is identified as being available by the scanning, continuing operation with the communication network.

8. The mobile station of claim 7, wherein the communication network comprises a Registered Public Land Mobile Network (RPLMN) during the method.

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9. The mobile station of claim 7, wherein the home communication network comprises a Home Public Land Mobile Network (HPLMN) of the mobile station.

30 10. The mobile station of claim 7, further comprising:

otherwise, if the communication network is identified as being unavailable by the scanning, selecting and operating with an alternative communication network based on a prioritized network list.

5 11. The mobile station of claim 7, wherein the scan comprises a receiving of a Mobile Country Code (MCC) and Mobile Network Code (MNC) pair for each communication network available in the coverage area.

10 12. The mobile station of claim 7, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

13. A communication system, comprising:
a first communication network;
a second communication network;
15 one or more mobile stations which are operable with the first and the second communication networks;
the one or more mobile stations having the second communication network designated as a home communication network;
the one or more mobile stations being operative to:
20 selecting and operating with the first communication network;
after regaining signal coverage from an out-of-coverage condition with the first communication network, or powering on from a power-off state, causing the following acts to be performed:
scanning to identify a plurality of communication networks in a
25 coverage area within which the mobile station is operating;
if the home communication network of the mobile station is identified as being available by the scanning, selecting and operating with the home communication network; and
otherwise, if the first communication network is identified as being available by the scanning, continuing operation with the communication network.

14. The communication system of claim 13, wherein the first communication network comprises a Registered Public Land Mobile Network (RPLMN) while operating therewith.

5 15. The communication system of claim 13, wherein the home communication network comprises a Home Public Land Mobile Network (HPLMN) of the one or more mobile stations.

10 16. The communication system of claim 13, further comprising: otherwise, if the first communication network is identified as being unavailable by the scanning, selecting and operating with an alternative communication network based on a prioritized network list.

15 17. The communication system of claim 13, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

20 18. A network selection method for a mobile station, comprising: receiving a user input for manually selecting a communication network for the mobile station; selecting and operating with the manually-selected communication network in response to the user input; after regaining signal coverage from an out-of-coverage condition with the communication network, or after power-on from a power-off state, causing the following acts to be performed:

25 scanning to identify a plurality of communication networks in a coverage area within which the mobile station is operating; if, as identified from the scanning, the communication network is available and a home communication network of the mobile station is unavailable: continuing operations with the communication network; and

if, as identified from the scanning, the home communication network is available: causing a visual input prompt to be displayed for manual selection of the home communication network.

5 19. The method of claim 18, wherein the home communication network comprises a Home Public Land Mobile Network (HPLMN) of the mobile station.

10 20. The method of claim 18, wherein the communication network comprises a Registered Public Land Mobile Network (RPLMN) during the method.

15 21. The method of claim 18, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

20 22. The method of claim 18, further comprising:
15 in response to the visual input prompt, receiving a user input for manually selecting the home communication network; and
 in response to the user input, registering and operating with the home communication network.

25 23. A mobile station, comprising:
 a user interface;
 a wireless transceiver;
 an antenna coupled to the wireless transceiver;
 one or more processors coupled to the wireless transceiver;
25 the one or more processors being configured to provide for the selection of a communication network by:
 receiving a user input from the user interface for manually selecting a communication network for the mobile station;
 selecting and operating with the manually-selected communication
30 network in response to the user input;

after regaining signal coverage from an out-of-coverage condition with the manually-selected communication network, or after power-on from a power-off state, causing the following acts to be performed:

5 scanning to identify a plurality of communication networks in a coverage area within which the mobile station is operating;

if, as identified from the scanning, the communication network is available and a home communication network of the mobile station is unavailable: continuing operations with the communication network; and

10 if, as identified from the scanning, the home communication network is available: causing a visual input prompt to be displayed for manual selection of the home communication network.

24. The mobile station of claim 23, wherein the home communication
15 network comprises a Home Public Land Mobile Network (HPLMN) of the mobile station.

25. The mobile station of claim 23, wherein the communication network comprises a Registered Public Land Mobile Network (RPLMN) during the method.

20 26. The mobile station of claim 23, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

27. The mobile station of claim 23, wherein the one or more processors are
25 further configured for:

receiving a user input for manually selecting the home communication network in response to the visual input prompt; and

registering and operating with the home communication network in response to the user input.

30 28. A communication system, comprising:
a first communication network;

a second communication network;

one or more mobile stations which are operable with the first and the second communication networks;

the one or more mobile stations having the second communication network

5 designated as a home communication network;

the one or more mobile stations being operative to:

receiving a user input from a user interface of the mobile station for manually selecting the first communication network for operation;

selecting and operating with the first communication network in

10 response to the user input;

after regaining signal coverage from an out-of-coverage condition with the first communication network, or after a power-on from a power-off state, causing the following acts to be performed:

scanning to identify a plurality of communication networks in a

15 coverage area within which the mobile station is operating;

if, as identified from the scanning, the communication network is available and the second communication network is unavailable:

continuing operations with the first communication network; and

if, as identified from the scanning, the second communication

20 network of the mobile station is available: causing a visual input prompt to be displayed for manual selection of the second communication network.

29. The communication system of claim 28, wherein the second

25 communication network comprises a Home Public Land Mobile Network (HPLMN) of the one or more mobile stations.

30. The communication system of claim 28, wherein the communication network comprises a Registered Public Land Mobile Network (RPLMN) during the

30 mobile station operation.

31. The communication system of claim 28, wherein the communication networks are operative in accordance with Global Systems for Mobile Communications (GSM).

5 32. The communication system of claim 28, wherein the one or more mobile stations are further operative for:

receiving a user input for manually selecting the second communication network in response to the visual input prompt; and

10 registering and operating with the second communication network in response to the user input.

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